

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claim 1 (currently amended): A fluorophosphate glass formed from a composition comprising on a mol basis:

614 a metaphosphate,  $\text{Ba}(\text{PO}_3)_2$   ~~$\text{Ba}(\text{PO}_3)_2$~~ , from 10 to 60 percent;

a metaphosphate,  $\text{Al}(\text{PO}_3)_3$   ~~$\text{Al}(\text{PO}_3)_3$~~ , from 10 to 60 percent;

a fluoride,  $\text{BaF}_2$   ~~$\text{BaF}_2$~~ , from 10 to 75 percent; and

a rare earth dopant.

Claim 2 (currently amended): A fluorophosphates glass formed from a composition comprising on a mol basis:

a metaphosphate,  $\text{Ba}(\text{PO}_3)_2$   ~~$\text{Ba}(\text{PO}_3)_2$~~ , from 10 to 60 percent;

a metaphosphate,  $\text{Al}(\text{PO}_3)_3$   ~~$\text{Al}(\text{PO}_3)_3$~~ , from 10 to 60 percent;

a fluoride,  $\text{R}_m\text{R}_n\text{F}_x$ , from 10 to 75 percent, selected from the group of:

$\text{BaF}_2$ ,  $\text{CaF}_2$ ,  $\text{MgF}_2$ ,  $\text{PbF}_2$  and  $\text{BiF}_3$ ; and

a dopant.

Claim 3 (canceled) ✓

Claim 4 (original): The glass as in claim 2 wherein the dopant is selected from the group of: the rare earth elements neodymium (Nd), erbium (Er), ytterbium (Yb), thulium (Tm), terbium (Tb), holmium (Ho), praseodymium (Pr); an oxide of manganese (Mn); and mixtures thereof.

Claim 5 (original): The glass as in claim 4 wherein the dopant is selected from the oxides of the rare earth elements.

Calim 6 (original): The glass as in claim 4 wherein the dopant on a mol percent basis is 2 to 15 percent.

Claim 7 (original): The glass as in claim 4 wherein the dopant is selected from the fluorides of the rare earth elements.

Claim 8 (currently amended): A fluorophosphate glass formed from a composition comprising on a mol basis:

a metaphosphate,  $\text{Ba}(\text{PO}_3)_2$   $\text{Ba}(\text{PO}_3)_2$ , from 10 to 60 percent;

a metaphosphate,  $\text{Al}(\text{PO}_3)_3$   $\text{Al}(\text{PO}_3)_3$ , from 10 to 60 percent;

a fluoride,  $\text{BaF}_2$   $\text{BaF}_2$ , from 10 to 75 percent; and

a dopant, from 2 to 15 percent, selected from the group of:

the oxides of the rare earth elements neodymium (Nd), erbium (Er), ytterbium (Yb), thulium (Tm), terbium (Tb), holmium (Ho), praseodymium (Pr);

an oxide of manganese (Mn); and mixtures thereof.

Claim 9 (currently amended): A fluorophosphate glass formed from a composition comprising on a mol basis:

a metaphosphate,  $\text{Ba}(\text{PO}_3)_2$   $\text{Ba}(\text{PO}_3)_2$ , from 0 to 100 percent;

a metaphosphate,  $\text{Al}(\text{PO}_3)_3$   $\text{Al}(\text{PO}_3)_3$ , from 0 to 100 percent;

a fluoride,  $\text{BaF}_2$   $\text{BaF}_2$ , from 5 to 30 percent; and

a dopant, from 2 to 15 percent, selected from the group of:

the oxides of the rare earth elements neodymium (Nd), erbium (Er), ytterbium (Yb), thulium (Tm), terbium (Tb), holmium (Ho), praseodymium (Pr);

an oxide of manganese (Mn); and mixtures thereof.

Claim 10 (currently amended): A fluorophosphate glass formed from a composition comprising on a mol basis:

a metaphosphate,  $\text{Ba}(\text{PO}_3)_2$   $\text{Ba}(\text{PO}_3)_2$ , from 0 to 45 percent;

a metaphosphate,  $\text{Al}(\text{PO}_3)_3$   $\text{Al}(\text{PO}_3)_3$ , from 5 to 30 percent;

a fluoride,  $\text{BaF}_2$   $\text{BaF}_2$ , from 45 to 75 percent; and

a dopant, from 2 to 15 percent, selected from the group of:

the oxides of the rare earth elements neodymium (Nd), erbium (Er), ytterbium (Yb), thulium (Tm), terbium (Tb), holmium (Ho), praseodymium (Pr);

an oxide of manganese (Mn); and mixtures thereof.

Claim 11 (currently amended): A fluorophosphate glass formed from a composition comprising on a mol basis:

a metaphosphate,  $\text{Ba}(\text{PO}_3)_2$   $\text{Ba}(\text{PO}_3)_2$ , approximately 10 percent;

a metaphosphate,  $\text{Al}(\text{PO}_3)_3$   $\text{Al}(\text{PO}_3)_3$ , approximately 18 percent;

a fluoride,  $\text{BaF}_2$   $\text{BaF}_2$ , approximately 70 percent; and

a dopant, approximately 2 percent:

of the oxide of neodymium (Nd).

Claim 12 (currently amended): A fluorophosphate glass formed from a composition comprising on a mol basis:

a metaphosphate,  $\text{Ba}(\text{PO}_3)_2$   $\text{Ba}(\text{PO}_3)_2$ , approximately 10 percent;

a metaphosphate,  $\text{Al}(\text{PO}_3)_3$   $\text{Al}(\text{PO}_3)_3$ , approximately 18 percent;

a fluoride,  $\text{BaF}_2$   $\text{BaF}_2$ , approximately 70 percent; and

a dopant, approximately 2 percent:

of the oxide of erbium (Er).

Claim 13 (withdrawn)

Claim 14 (withdrawn)

Claim 15 (withdrawn)

Claim 16 (currently amended): A fluorophosphate glass formed from a composition comprising on a mol basis:

a metaphosphate,  $\text{Ba}(\text{PO}_3)_2$   $\text{Ba}(\text{PO}_3)_2$ , from 10 to 60 percent;

a metaphosphate,  $\text{Al}(\text{PO}_3)_3$   $\text{Al}(\text{PO}_3)_3$ , from 10 to 60 percent;

a fluoride,  $\text{BaF}_2\text{BaF}_2$  +  $\text{RF}_x$ , from 10 to 90 percent; and  
a dopant.

915 Claim 17 (currently amended): The glass as in claim 16 wherein the fluoride  $\text{RF}_x$  is one of the group of:

~~$\text{CaF}_2\text{CaF}_2$ ,  $\text{MgF}_2\text{MgF}_2$ ,  $\text{PbF}_2\text{PbF}_2$  and  $\text{BiF}_3\text{BiF}_3$ .~~

Claim 18 (original): The glass as in claim 16 wherein the dopant is selected from the group of:  
the rare earth elements neodymium (Nd), erbium (Er), ytterbium (Yb), thulium (Tm),  
terbium (Tb), holmium (Ho), samarium (Sm), europium (Eu), praseodymium (Pr); an oxide of  
manganese (Mn); and mixtures thereof.

Claim 19 (original): The glass as in claim 18 wherein the dopant is selected from the oxides of  
the rare earth elements.

Claim 20 (original): The glass as in claim 18 wherein the dopant on a mol percent basis is 2 to  
15 percent.

Claim 21 (original): The glass as in claim 18 wherein the dopant is selected from the fluorides  
of the rare earth elements.

Claim 22 (currently amended): A fluorophosphate glass formed from a composition  
comprising on a mol basis:

a metaphosphate,  $\text{Ba}(\text{PO}_3)_2\text{Ba}(\text{PO}_3)_2$ , from 5 to 60 percent;

a metaphosphate,  $\text{Al}(\text{PO}_3)_3\text{Al}(\text{PO}_3)_3$ , from 5 to 60 percent;

916 a fluoride,  $\text{BaF}_2\text{BaF}_2$  +  $\text{RF}_x$  wherein  $\text{RF}_x$  is selected from the group of  $\text{CaF}_2\text{CaF}_2$ ,  
 $\text{MgF}_2\text{MgF}_2$ ,  $\text{PbF}_2\text{PbF}_2$  and  $\text{BiF}_3\text{BiF}_3$ , from 10 to 90 percent; and

a dopant, from 2 to 20 percent, selected from the group of:

the oxides of the rare earth elements neodymium (Nd), erbium (Er), ytterbium (Yb), thulium  
(Tm), terbium (Tb), holmium (Ho), praseodymium (Pr), samarium (Sm), europium (Eu);  
an oxide of manganese (Mn); and mixtures thereof.

Claim 23 (currently amended): A fluorophosphate glass formed from a composition comprising on a mol basis:

a metaphosphate,  $\text{Ba}(\text{PO}_3)_2$   $\text{Ba}(\text{PO}_3)_2$ , from 0 to 100 percent;

a metaphosphate,  $\text{Al}(\text{PO}_3)_3$   $\text{Al}(\text{PO}_3)_3$ , from 0 to 100 percent;

a fluoride,  $\text{BaF}_2$   $\text{BaF}_2$  +  $\text{RFx}$  wherein  $\text{RFx}$  is selected from the group of  $\text{CaF}_2$   $\text{CaF}_2$ ,  $\text{MgF}_2$   $\text{MgF}_2$ ,  $\text{PbF}_2$   $\text{PbF}_2$  and  $\text{BiF}_3$   $\text{BiF}_3$ , from 5 to 90 percent; and

a dopant, from 2 to 20 percent, selected from the group of:

the oxides of the rare earth elements neodymium (Nd), erbium (Er), ytterbium (Yb), thulium (Tm), terbium (Tb), holmium (Ho), praseodymium (Pr), samarium (Sm), europium (Eu);

an oxide of manganese (Mn); and mixtures thereof.

Claim 24 (currently amended): A fluorophosphate glass formed from a composition comprising on a mol basis:

a metaphosphate,  $\text{Ba}(\text{PO}_3)_2$   $\text{Ba}(\text{PO}_3)_2$ , from 0 to 45 percent;

a metaphosphate,  $\text{Al}(\text{PO}_3)_3$   $\text{Al}(\text{PO}_3)_3$ , from 5 to 30 percent;

a fluoride,  $\text{BaF}_2$   $\text{BaF}_2$  +  $\text{RFx}$  wherein  $\text{RFx}$  is selected from the group of  $\text{CaF}_2$   $\text{CaF}_2$ ,  $\text{MgF}_2$   $\text{MgF}_2$ ,  $\text{PbF}_2$   $\text{PbF}_2$  and  $\text{BiF}_3$   $\text{BiF}_3$ , from 45 to 90 percent; and

a dopant, from 2 to 20 percent, selected from the group of:

the oxides of the rare earth elements neodymium (Nd), erbium (Er), ytterbium (Yb), thulium (Tm), terbium (Tb), holmium (Ho), praseodymium (Pr), samarium (Sm), europium (Eu);

an oxide of manganese (Mn); and mixtures thereof.

Claim 25 (currently amended): A fluorophosphate glass formed from a composition comprising on a mol basis:

a metaphosphate,  $\text{Ba}(\text{PO}_3)_2$   $\text{Ba}(\text{PO}_3)_2$ , approximately 10 percent;

a metaphosphate,  $\text{Al}(\text{PO}_3)_3$   $\text{Al}(\text{PO}_3)_3$ , approximately 18 percent;

a fluoride,  $\text{BaF}_2$   $\text{BaF}_2$  +  $\text{RFx}$  wherein  $\text{RFx}$  is selected from the group of  $\text{CaF}_2$   $\text{CaF}_2$ ,

$\text{MgF}_2\text{MgF}_2$ ,  $\text{PbF}_2\text{PbF}_2$  and  $\text{BiF}_3\text{BiF}_3$ , approximately 90 percent; and

a dopant, approximately 5 percent:

of the oxide of neodymium (Nd).

Claim 26 (currently amended): A fluorophosphate glass formed from a composition comprising on a mol basis:

a metaphosphate,  $\text{Ba}(\text{PO}_3)_2$   $\text{Ba}(\text{PO}_3)_2$ , approximately 10 percent;

a metaphosphate,  $\text{Al}(\text{PO}_3)_3$   $\text{Al}(\text{PO}_3)_3$ , approximately 18 percent;

a fluoride,  $\text{BaF}_2$   $\text{BaF}_2$  +  $\text{RF}_x$  wherein  $\text{RF}_x$  is selected from the group of  $\text{CaF}_2$   $\text{CaF}_2$ ,

$\text{MgF}_2\text{MgF}_2$ ,  $\text{PbF}_2\text{PbF}_2$  and  $\text{BiF}_3\text{BiF}_3$ , approximately 90 percent; and

a dopant, approximately 10 percent:

of the oxide of erbium (Er).

Claim 27 (withdrawn)

Claim 28 (withdrawn)

Claim 29 (withdrawn)